

Westford Stream Team Vine Brook Special Study Preliminary Results

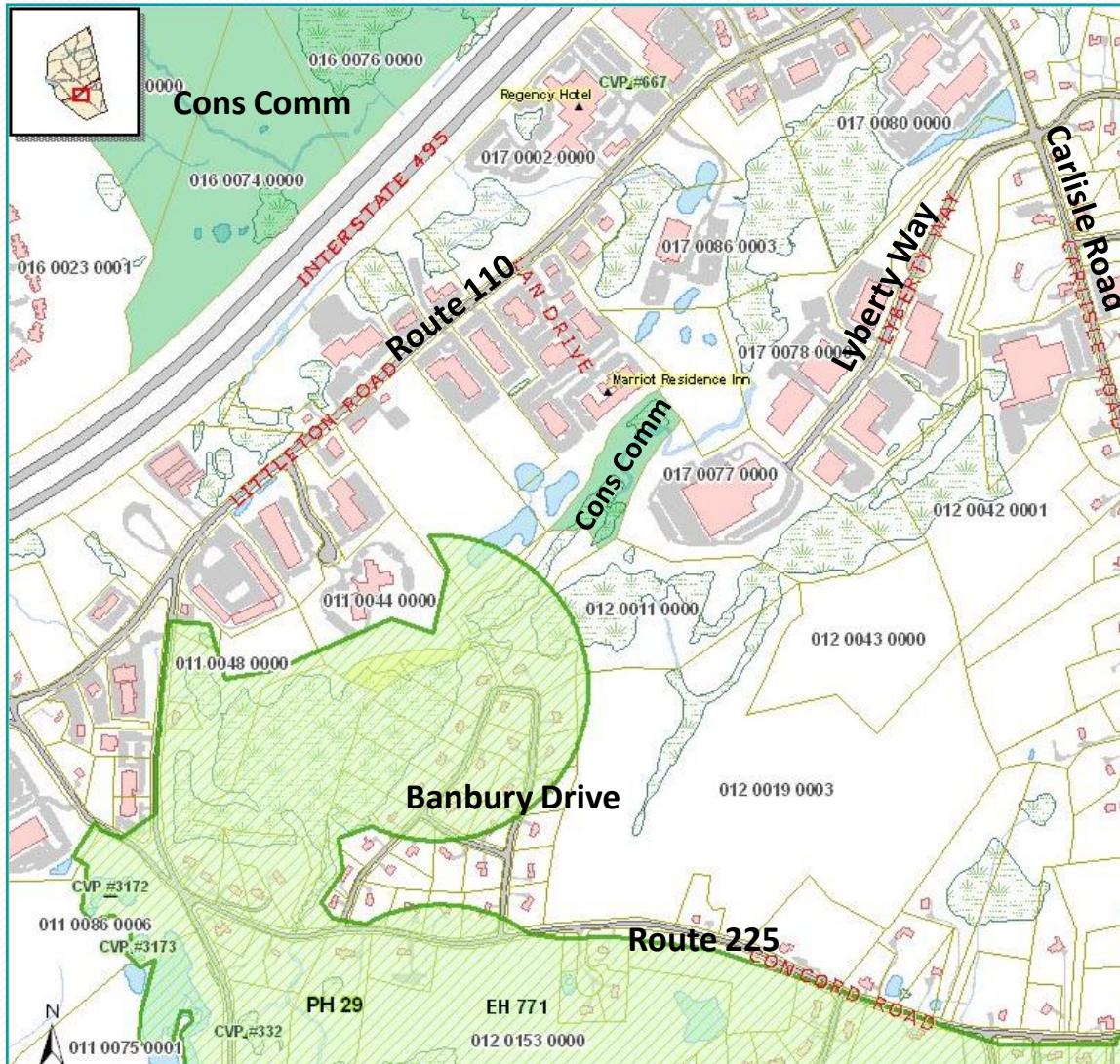
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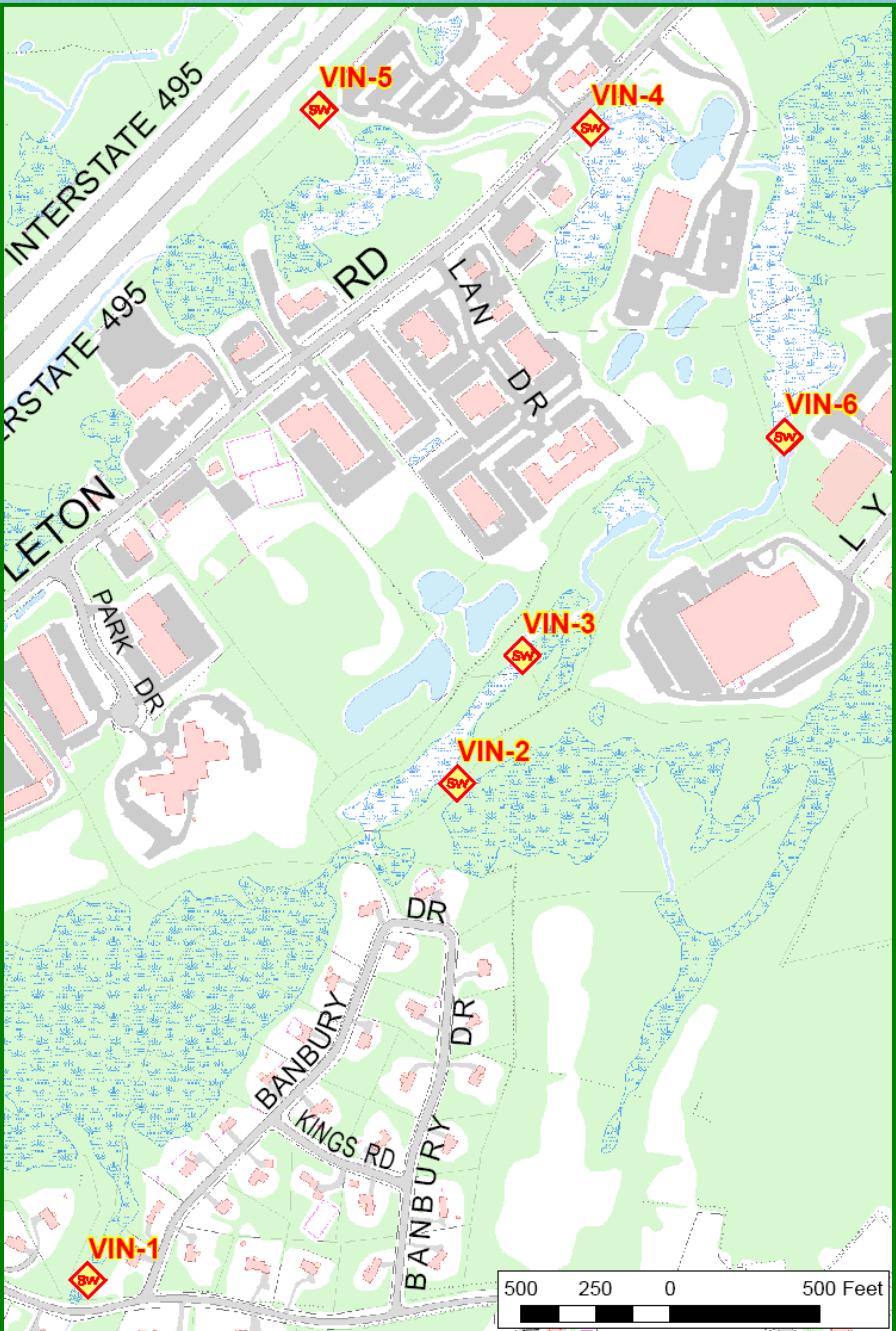
10 July, 2013

Summary

- 2013 Vine Brook special study (preliminary results)
 - 5/19: Sampled 6 upstream sites for total & ortho phosphorous, conductivity, pH, oxygen, nitrates (3 sites)
 - Very low pH in tributary intermittent stream (4.3 to 4.7)
 - Additional sampling along tributary 5/31 and 6/23
 - Request staff input on possible further investigation and or action

Area Overview



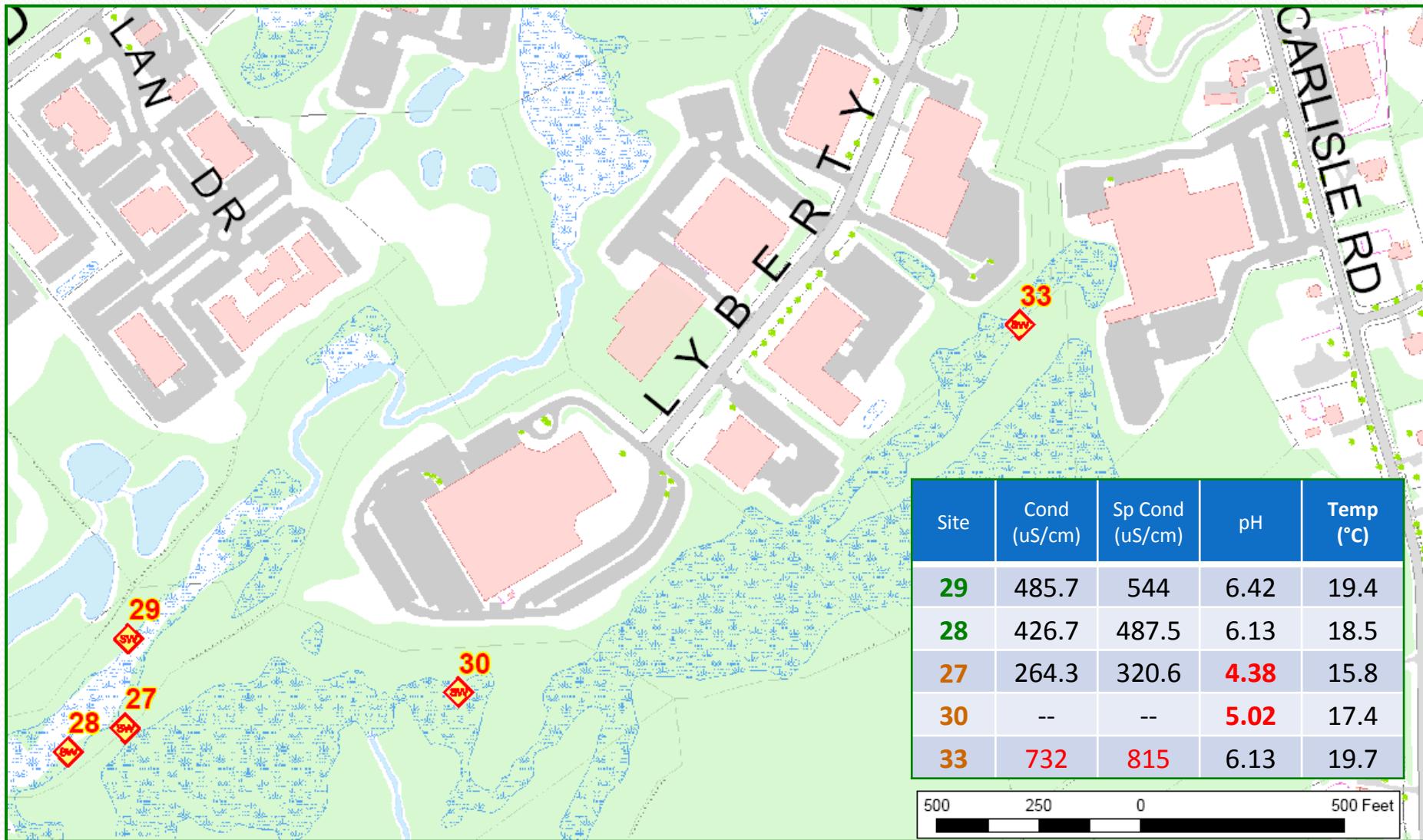


Vine Brook Study:

19 May 2013

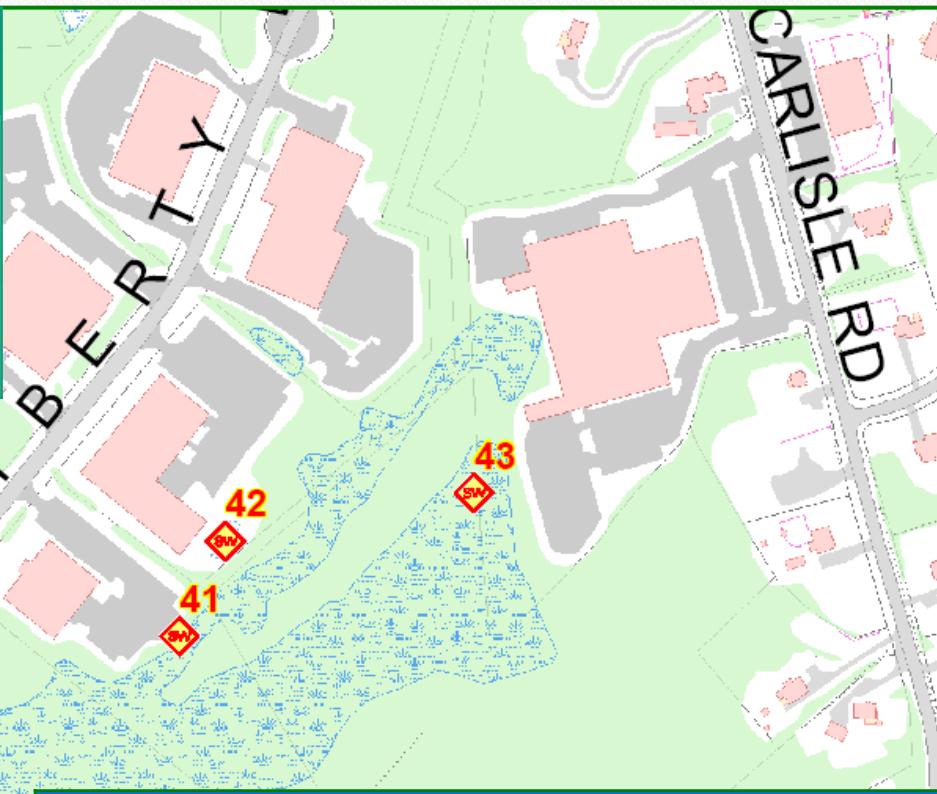
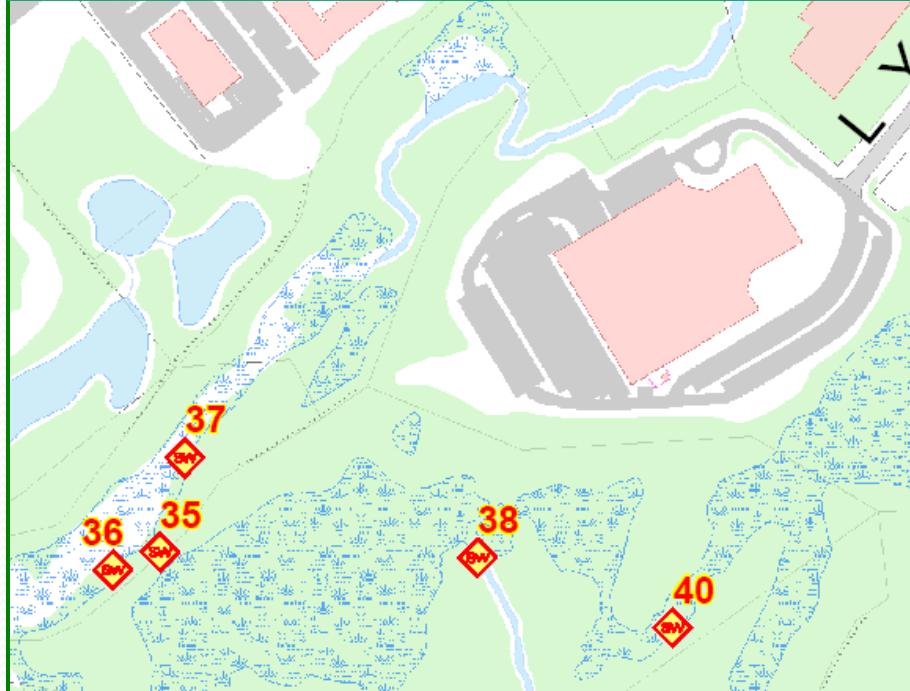
	VIN-1	VIN-2	VIN-3	VIN-6	VIN-4	VIN-5
Cond (uS/cm)	674	178.4	631	704	507	307.2
Sp Cond (uS/cm)	826	227.6	769	765	605	374
DO (mg/L)	2.54	5.2	9.08	9.77	9.61	8.59
DO (%)	25.5	50.3	91.4	109.3	98.6	86.3
pH	6.25	4.5	6.58	6.57	6.71	6.65
Temp (°C)	15.4	13.7	15.6	20.8	16.5	15.6
Nitrate (mg/L)	0.27	--	--	ND	--	0.05
P - Ortho (mg/L)	0.07	ND	0.05	0.07	0.15	0.02
P - Total (mg/L)	0.09	ND	0.06	0.08	0.39	0.02

Tributary Sampling: 31 May 2013



Tributary Sampling: 23 June 2013

Site	Cond (uS/cm)	Sp Cond (uS/cm)	DO (mg/L)	DO (%)	pH	Temp (°C)
37	577	631	6.66	74.1	6.33	20.5
36	502	555	6.76	75.5	6.18	20.1
35	212.6	250.0	3.81	39.6	4.66	17.2
38	--	--	3.81	40.7	4.69	17.9
40	--	--	2.40	26.6	5.52	19.4



Site	Cond (uS/cm)	Sp Cond (uS/cm)	DO (mg/L)	DO (%)	pH	Temp (°C)
41	--	--	1.77	19.8	6.12	20.2
42	17	18.9	2.41	26.2	5.42	19.6
43	--	--	1.84	21.0	6.29	21.4